

Operations Plan
Jicarilla 123 C #31

I. Location: 1190'N, 1100'W, Section 7, T-25-N, R-4-W, Rio Arriba Co., N,

Field: Basin Dakota

Elevation: 6989'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	5130'
	Ojo Alamo	2860'	Pt. Lookout	5585'
	Kirtland	2975'	Gallup	6730'
	Fruitland	3275'	Greenhorn	7595'
	Pic. Cliffs	3380'	Graneros	7549'
	Lewis	3500'	Dakota	7710'
	Mesa Verde	5080'	Total Depth	7900'

B. Logging Program: Induction Electric and Gamma Ray Density at TD.

C. Coring: none

III. Drilling:

A. Mud Program: mud from surface to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg. Size</u>	<u>Wt. & Grade</u>
	12 1/4"	200'	8 5/8"	24.0# K-55
	7 7/8"	6500'	4 1/2"	10.5# K-55
	7 7/8"	7900'	4 1/2"	11.6# K-55

B. Float Equipment: 8 5/8" surface casing - cement guide shoe

4 1/2" production casing - guide shoe and self-fill insert valve. Two multiple stage cementers equipped for three stage cementing. Set tool for second stage at 6185'' and tool for third stage at 3600''. Run 20 centralizers spaced as follows: one on each of the bottom 8 joints, one below each stage tool, and five above each stage tool spaced every other joint.

C. Tubing: 7900'' of 2 3/8", 4.7#, J-55 tubing, common pump seating nipple and expendable check valve with drill type guide.

D. Wellhead Equipment: 8" 2000 x 8 5/8" casing head, with 8" x 4 1/2" casing hanger, 8" 2000 x 6" 2000 xmas tree.

V. Cementing:

Surface casing (12 1/4" x 8 5/8") - use 140 sks. Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (165 cu.ft. of slurry, 100% excess to circulate). WOC 12 hours. Test to 600#/30 min.